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Mammou et al.

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(54) **POINT CLOUD GEOMETRY COMPRESSION**

(56) **References Cited**

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(21) Appl. No.: **16/569,433**

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See application file for complete search history.

(57) **ABSTRACT**

A system comprises an encoder configured to compress a
point cloud comprising a plurality of points each point
comprising spatial information for the point. The encoder is
configured to sub-sample the points and determine subdivi-
sion locations for the subsampled points. Also, the encoder
is configured to determine, for respective subdivision loca-
tion, if a point is to be included, not included, or relocated
relative to the subdivision location. The encoder encodes
spatial information for the sub-sampled points and encodes
subdivision location point inclusion/relocation information
to generate a compressed point cloud. A decoder recreates an
original or near replica of an original point cloud based on
the spatial information and the subdivision location inclu-
sion/relocation information included in the compressed
point cloud.

20 Claims, 11 Drawing Sheets

